

## SERVICE BULLETIN AMATEUR RADIO

<b>SUBJECT</b> TM-731A/631A 144MHZ FINAL BOARD C17 CHANGE	<b>DATE</b> 08/08/90
<p>Bypass capacitor C17 on the 144MHz Final board has been changed in production from a "flat package" chip capacitor to a "cylindrical package". The change prevents the capacitor from fracturing. If C17 fractures, the output of the power module can burn C17, R11, and L6. Additionally, Q1 on the TX/RX (144MHz) board may be damaged.</p> <p>C17 should be changed as a part of routine maintenance when a TM-731A/631A is received for service. The new style capacitor part number is CK41FY1E102M. For field service, a 0.001uF, 25V disc ceramic capacitor can be used.</p> <p>The production change started at serial number 108XXXX.</p> <p>To replace C17:</p> <ol style="list-style-type: none"><li>1. Disconnect the power supply and antenna.</li><li>2. Remove the top cover. Do not damage the speaker wires.</li><li>3. Remove the shield plate from the VHF Final unit (4 screws). Figure 1</li><li>4. Remove the 7 screws that secure the final board to the chassis. Figure 2</li><li>5. Remove the 2 screws that secure the power module to the chassis. Figure 2</li><li>6. Remove the 2 screws that secure the VHF antenna coax to the heat sink.</li><li>7. Desolder the center conductor and shield of the VHF antenna coax from the final board and pull the coax out of the heat sink. Figure 2</li><li>8. Desolder the terminal next to pin 3 of the power module. Figure 2</li><li>9. Rotate the board toward the front of the transceiver to expose the foil side of the board.</li><li>10. Inspect the solder at the terminals the antenna coax was soldered to. They may need to be resoldered.</li><li>11. Replace C17. Figure 3</li></ol>	

PAGE 1 OF 2

12. If you are servicing a TM-731A/631A that has been damaged, check R11 and L6. The coil may have pin hole burn marks in its insulation and the resistor may be open. In addition, check Q1 on the RX/TX (144MHz) board. If it is damaged, the receiver sensitivity will be low.
13. If the Final board has been burned, it can be repaired. The carbon must be completely removed from the board to prevent the board from burning any further (carbon tracking of the RF signal). The burned area should be filled with epoxy and the lands must be repaired.

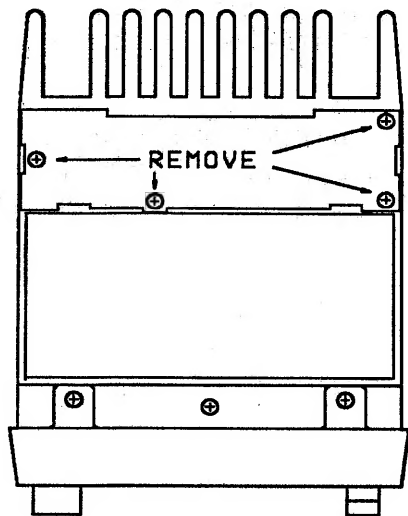


FIGURE 1

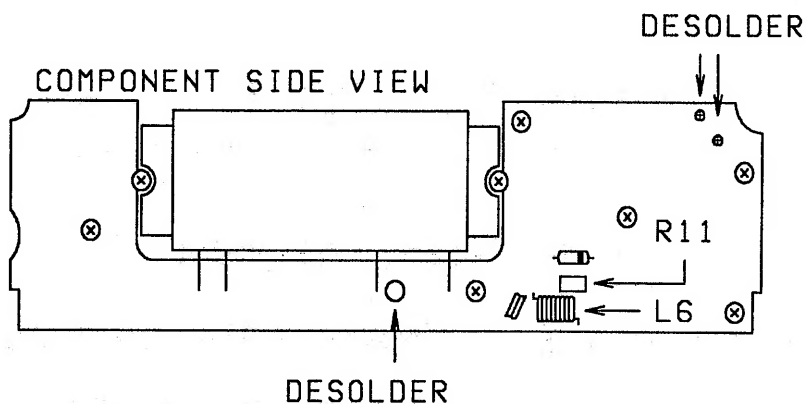


FIGURE 2

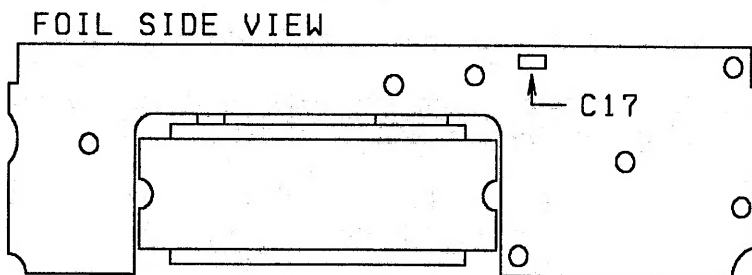


FIGURE 3

PAGE 2 OF 2

This modification is covered under warranty during the warranty period. Time required to perform this modification is 1 hr. or less. Copyright (C)080690EWP for Kenwood U.S.A. Corporation.